611-TD-550-001

EOSDIS Core System Project

M&O Procedures: Section 16—Media and Interactive Ingest

Interim Update

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Raytheon Systems Company
Upper Marlboro, Maryland

Preface

This document is an interim update to the Mission Operations Procedures Manual for the ECS Project, document number 611-CD-500-001. **This document has not been submitted to NASA for approval, and should be considered unofficial.**

This update contains changed parts of Section 16.

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16.2.8.3 Performing Media Ingest from D3 Tape (EDC Only)

This section describes how to access the StorageTek Controller/Transport Redwood SD-3 for D3 tape processing as used by Media Ingest. The Data Ingest Technician (DIT) can access the information stored on a D3 tape by utilizing the Ingest GUI Interface.

Once the extraction command has been executed the system will read the D3 tape from the header label then access the data needed for Ingest processing. Upon completion of the process the D3 tape will automatically rewind and eject itself from the tape drive.

If you are already familiar with the procedure, you may prefer to use the quick-step table at the end of the procedure. If you are new to the system, or have not performed this task recently you should use the following detailed procedure.

1 Compare the received medium to a media ingest readiness checklist to verify that everything needed for the media ingest is in order.
- The media ingest readiness checklist includes the following types of checks:
  - PDR file is available, either placed on the network by the data provider or embedded in the medium.
  - Data provider has identified the PDR file name.
  - There is a unique Media Volume ID for each tape received.
  - An appropriate device (tape drive) is available to support the data transfer.

2 Verify that the display above the D3 tape unit indicates "*****".

3 Verify that there is **no** tape cartridge inserted in the D3 tape unit.
- Remove the tape cartridge in the D3 tape unit (if applicable).

4 Verify that the **Ready** light is illuminated in the second row of the panel near the window of the D3 tape unit where the tape is inserted.
- If the **Ready** light is not illuminated, push the **Ready** button.

5 Click on the **ECS Ingest** icon. This assumes that the Ingest GUI is running, if the GUI is not up, then follow the steps for bringing up the Ingest GUI outlined in section 16.2.1.
- The **ECS Ingest** tool is opened.
- The **Ingest Intro** screen is displayed.

6 Click on the **Media Ingest** tab widget.
- The **Media Ingest** screen is displayed.

7 Click on the **Media Type** field.
- Cursor moves to the **Media Type** field.

8 Enter the **Media Type**, then press **Tab.**

- To enter the type of medium (i.e., **D3 Tape**) click and hold on the option button to the right of the **Media Type** field, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.
- The selected type of medium is displayed in the **Media Type** field.
- Cursor moves to the **Data Provider** field.

9 Enter the **Data Provider**, then press **Tab.**

- A drop down option menu can also be used.
- To enter the data provider (e.g., **SCF**) click and hold on the option button to the right of the **Data Provider** field, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.
- The selected data provider is displayed in the **Data Provider** field.
- The cursor moves to the **Media Volume ID** field.

10 Enter the **Media Volume ID** number from the tape in the **Media Volume Id (Barcode)** field.

- The **Media Volume ID** number is displayed in the display box below the **Media Volume ID** field.

11 Click on the **On Network** button located in the Radio Box.

- This tells the system that the **Delivery Record** is located on the Network.
- If the **Delivery Record** is embedded in the tape, select the **Embedded in Media** button.

12 Enter the data delivery record file name (e.g., **scf11a.PDR**) in the **Data Delivery Record File Name** field.

13 Click (**once only**) on the **OK** button at the bottom of the GUI.

- The GUI **OK** button is sensitive to being clicked more than once. It is important to click it dead center once only or D3 ingest is likely to fail.

14 Insert the tape cartridge in the D3 tape drive.

- The tape cartridge must be inserted within one minute of clicking on the **OK** button on the Ingest GUI.
- The message "Loading" should be displayed on the D3 tape drive unit panel.
- Then the message "Ready" should be displayed on the D3 tape drive unit panel and the "ready" light should blink on and off for a while.
- Avoid clicking the mouse on the Ingest GUI while the D3 tape unit is reading the tape.
- Once the extraction command has been executed, the system reads the D3 tape from the header label, then accesses the data needed for Ingest processing.

15 When the data transfer has been completed, wait for the message "Ingest Request Completed."

- The messages "Rewinding" then “Unloading” should be displayed on the D3 tape drive unit panel as the D3 tape drive unit rewinds and unloads after the data transfer.
- Upon completion of the process the D3 tape automatically rewinds and ejects itself from the tape drive.

16 Remove the tape cartridge from the D3 tape drive.

17 Select another function by clicking on a widget tab.

18 To exit the **ECS Ingest** tool, select menu path **File / Exit**.

Table 16.2-15. Performing Media Ingest from D3 Tape - Quick Steps Procedures

Step	What to Enter or Select	Action to Take
1	**ECS Ingest** icon	**Single Click**
2	**Media Type** Tab widget	**Press Return**
3	**Media Type** field	**Single Click**
4	Enter the **Media Type** (D3)	**Press Tab**
5	Enter the **Data Provider**	**Press Tab**
6	Enter the **Media Volume ID**	**Press Tab**
7	**On Network** button	**Single Click**
8	**OK** push button	**Single Click**
9	Insert D3 tape cartridge in the D3 Tape Drive	**Single Click**
10	**File** / **Exit**	**Single Click and drag**

16.2.8.4 Ingest EDOS D3 (GDAAC)

1. After D3 tape(s) are received from EDOS, they must be manually placed into the ingest polling directory. Use the following steps to complete the operational task.

2. On g0drg01, log-on using the ***amass*** account and password. Once logged on, vary drive 8 off-line, using the following command: ***drivestat –i 8***
Note drive 8 is used as an example any drive could be used.

3. Insert the D3 EDOS tape into the archive using the following steps:

Log-on the g0drs04 system using the ***ACSLS*** account & password.

Enter the D3 media into the StorageTek archive. Using the ***ACSLS*** window type: ***enter 0,0,0***
Prior to this write down the ***volume label*** for reference. Note the D3 media must be inserted in the Upper most left corner of the input/output bin. Close the input/output door

after the D3 media has been placed in to the bin. The media is now loaded into the Archive.

4. Move the media into Drive 8 using the following commands (note user is still on the g0drs04 box):

mount volume label 0,0,1,3

5. Read the tape contents using the following command (user now back on g0drg01 box): This process could take several iterations to read the complete tape.
   tar –tvf /dev/rmt/tps94d4nr

6. Once the read completes. Extract the data from tape to a holding location large enough to store all the data on the tape. This will be some place on the L0_buffer (g0drg01). Again this could take several iterations. But it will be the same number of trys as in step 5. To Extract the data type:
   tar –xvf /dev/rmt/tps94d4nr /L0_buffer/predetermined location

7. When the extract completes. The ingest data must be identified. Once the files to be ingested have been identified they must be transferred to ***g0icg01*** polling directory location: ***/usr/ecs/<MODE>/icl/a/data/pollEDOS***. Recommended transfer method: ***dd if=data location/filename of=/usr/ecs/<MODE>/icl/a/data/pollEDOS/filename bs=4096***

8. Once all the files that make up a granule have been transferred to ***g0icg01*** 2 files must be created using the following utility:
   /tools/share/bin/genPDRS5A <data type name> <first PDS file on the granule> < usr/ecs/<MODE>/icl/a/data/pollEDOS>

9. Have the ingest technician verify the transfer completes successfully. Repeat steps 7 & 8 until all granules have been ingested.

16.3 Interactive Ingest Tool

A data provider can ingest data without direct operator action through the automated network. The interactive ingest is provided by an HTML web server interface that allows authorized science users the capability to ingest data electronically. The Data Provider will access the automated network Ingest HTML home page through **Netscape.**

The data provider will send a **Data Availability Notice** (**DAN**) to the Ingest Subsystem indicating that data is ready for transfer (Section 16.3.1). The **DAN** identifies parameters such as data source, number of files, and location of data. The Ingest Subsystem generates a **Data Availability Acknowledgment (DAA)**, which is sent to the Data Provider, indicating readiness to ingest the data identified in the **DAN**. The procedures to start the interactive ingest server and submit and ingest request can be found in (Section 16.3.2). To monitor the status of on-going

requests see (Section 16.3.3). To view the ingest Completion status follow the procedures in (Section 16.3.4).

The Activity Checklist table that follows provides an overview of the **Interactive Ingest Tool** and its process. Column one (**Order**) shows the order in which tasks should be accomplished. Column two (**Role**) lists the Role/Manager/Operator responsible for performing the task. Column three (**Task**) provides a brief explanation of the task. Column four (**Section**) provides the Procedure (**P**) section number or Instruction (**I**) section number where details for performing the task can be found.

Table 16.3-1. Interactive Ingest - Activity Checklist

Order	Role	Task	Section
1	Data Provider / DIT	Creating a Data Availability Notice (DAN)	(P) 16.3.1
2	Ingest Subsystem	Generate and Send Data Availability Acknowledgement (DAA)	(P) 16.3.1
3	Data Provider	Submitting an Ingest Request	(P) 16.3.2
4	Data Provider	Monitoring On-Going Request Status	(P) 16.3.3
5	Data Provider	Viewing Ingest Completion Status	(P) 16.3.4

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